

API Spec 11B

Technical Summary and Reference Data

Sucker Rods and Rod-related Products

Prepared as a client-ready engineering reference PDF

Document purpose

Provide a concise, accurate summary of the current API Spec 11B publication status and a practical reference set for covered products, public dimensional data, mechanical properties, inspection logic, marking, packaging, and traceability.

***Important note:** This file is a technical summary, not a substitute for the licensed full standard. The latest official publication status comes from API's 2025 Publications Catalog and API Monogram updates. Detailed dimensional and mechanical values reproduced here are limited to a small working subset taken from a publicly accessible scan of API 11B 27th Edition for reference use. Contract, licensing, and acceptance decisions should be checked against the licensed copy of the 28th Edition plus Addendum 1 where applicable.*

Current official status	28th Edition published December 2023
Published effective date	December 12, 2024
Latest published update	Addendum 1 dated September 2025; API Monogram effective date April 1, 2026
Primary standard family	API Spec 11B - Sucker Rods and Rod-related Products

1. What API Spec 11B Covers

API's 2025 Publications Catalog describes Spec 11B as the standard that provides requirements and guidelines for the design of thread form requirements, steel sucker rods and pony rods, fiber reinforced plastic (FRP) sucker rods and pony rods, sinker bars, polished rods, couplings and sub-couplings, thread gauges, pumping tees, stuffing boxes, polished rod clamps, calibration of measuring equipment, standard methods of mechanical properties testing, and polished rod liners for use in sucker rod lift service.

Covered under the current API 11B product family	Current API source
Steel sucker rods and steel pony rods	2025 API Publications Catalog; 2024 API 11B Licensing Information Form
FRP sucker rods	2025 API Publications Catalog; 2024 API 11B Licensing Information Form
Sucker rod couplings and sub-couplings	2025 API Publications Catalog; 2024 API 11B Licensing Information Form
Polished rods, polished rod couplings, and polished rod clamps	2025 API Publications Catalog; 2024 API 11B Licensing Information Form
Stuffing boxes and pumping tees	2025 API Publications Catalog; 2024 API 11B Licensing Information Form
Sinker bars and thread gauges	2025 API Publications Catalog; 2024 API 11B Licensing Information Form

API's March 2024 Licensing Information Form update also matters for certification scope. It states that the product 'Threading' was removed from the API Spec 11B Licensing Information Form, and the threading license option was withdrawn from existing API Spec 11B licenses by October 1, 2024.

Addendum 1 issued in September 2025 updates selected gauge variables and symbols. The published notice states that DTCB and LTCB were deleted, while DTPC and SB4 were added, with related updates in Section 4 and Annex I.

2. Steel Sucker Rod and Pony Rod Dimensional Reference

The following dimensional items are a compact working subset from the publicly accessible scan of API 11B 27th Edition Annex A. They remain useful for RFQ preparation, drawing review, and inspection planning. The latest licensed 28th Edition should be checked before using any value as a contractual acceptance limit.

Feature	5/8	3/4	7/8	1	1-1/8
Nominal rod body size DR	5/8 in. 15.88 mm	3/4 in. 19.05 mm	7/8 in. 22.23 mm	1 in. 25.40 mm	1-1/8 in. 28.58 mm
Rod body tolerance	+0.007 / -0.014 in.	+0.008 / -0.016 in.	+0.008 / -0.016 in.	+0.009 / -0.018 in.	+0.010 / -0.020 in.
Pin shoulder OD DF	1.250 in. 31.75 mm	1.500 in. 38.10 mm	1.625 in. 41.28 mm	2.000 in. 50.80 mm	2.250 in. 57.15 mm
Wrench square width WS	0.875 in. 22.23 mm	1.000 in. 25.40 mm	1.000 in. 25.40 mm	1.3125 in. 33.34 mm	1.500 in. 38.10 mm
Sucker rod length LK	296 or 356 in. 7518.4 or 9042.4 mm	296 or 356 in.	296 or 356 in.	296 or 356 in.	296 or 356 in.
LK tolerance	±2.0 in. ±50.8 mm	±2.0 in.	±2.0 in.	±2.0 in.	±2.0 in.
Pony rod length LY	20, 44, 68, 92, 116, 140 in. 508 to 3556 mm	same	same	same	same
LY tolerance	±2.0 in. ±50.8 mm	±2.0 in.	±2.0 in.	±2.0 in.	±2.0 in.
Thread diameter DT	0.9375 in. 23.81 mm	1.0625 in. 26.99 mm	1.1875 in. 30.16 mm	1.375 in. 34.93 mm	1.5625 in. 39.69 mm
Stress relief D1	0.790 in. 20.07 mm	0.915 in. 23.24 mm	1.040 in. 26.42 mm	1.227 in. 31.17 mm	1.414 in. 35.92 mm
Pin length LS	1.250 in. 31.75 mm	1.4375 in. 36.51 mm	1.625 in. 41.28 mm	1.875 in. 47.63 mm	2.125 in. 53.98 mm

API 11B Annex A also states that the threaded portion of sucker rod shouldered connections shall be 10 threads per inch and conform to the unified thread form with Class 2A-2B tolerances and allowances. The pin thread profile is UNR with rounded root contour; the box thread profile is UN with a flat root contour, with a permissible rounded root contour beyond the basic profile limit.

3. Mechanical Properties and Inspection Logic

Steel rod grade	Minimum yield	Minimum tensile	Maximum tensile
K	60,000 psi / 414 MPa	90,000 psi / 621 MPa	115,000 psi / 793 MPa
C	60,000 psi / 414 MPa	90,000 psi / 621 MPa	115,000 psi / 793 MPa
D	85,000 psi / 586 MPa	115,000 psi / 793 MPa	140,000 psi / 965 MPa

For steel sucker rods and steel pony rods, API 11B requires mechanical properties testing in accordance with ASTM A370 or ISO 6892. The public 27th Edition text states that a minimum of two mechanical tests shall be performed on at least two rod bodies, one near the beginning and one near the end of each heat, after final thermal processing.

Inspection topic	API 11B working requirement
Thread minimum size	Product pin shall not enter the P6 no-go pin-thread ring gauge more than the third full turn of assembly.
Thread maximum size	Product pin shall enter the P8 go pin-thread ring gauge to pin-shoulder face contact.
Records retention	Documents and data retained for a minimum of five years from date of manufacture.
Marking record link	Identification code links date of manufacture, grade of steel, heat number, and metallurgical treatment.
Field availability	Marking and associated record available to the user or purchaser on request for five years.

4. Marking, Color Code, Packaging, and Handling

API 11B requires permanent marking on the wrench square before heat treatment is completed. The marking identifies the manufacturer, nominal size, grade, identification code, month, and year of manufacture. The identification code is the key traceability link because it connects the finished rod to the manufacturing record, steel grade, heat number, and metallurgical treatment history.

Steel rod grade marking	Color code
C	White
K	Blue
D - Carbon steel	Brown
D - Alloy steel	Yellow
D - Special alloy	Orange

Packaging and handling provisions are practical, not decorative. API 11B states that thread protectors shall protect the pin or box thread and contact face during normal transportation and handling. External protectors are required on all external threads, and internal protectors are required in the open ends of installed couplings. The same section warns that kinked, bent, or nicked rods are permanently damaged and shall be discarded.

For inspection planning, this means three things. First, thread protectors are part of conformity, not optional packing accessories. Second, storage and transport layout must prevent rod bending and thread jamming. Third, visible damage at rod ends is an integrity problem, not a cosmetic issue.

5. Practical Use Notes for RFQ, Inspection, and Audit

- Use the official API source set to confirm publication status: 28th Edition published December 2023, effective December 12, 2024; Addendum 1 dated September 2025 with API Monogram effective date April 1, 2026.
- Use the current 2024 Licensing Information Form to confirm which 11B products remain eligible for Monogram scope. The product 'Threading' was removed from the LIF and withdrawn by October 1, 2024.
- When reviewing supplier drawings, the first dimensional checks should be nominal rod body diameter DR, pin shoulder OD DF, wrench square width WS, thread diameter DT, and pin length LS.
- When reviewing mill and release documents, mechanical properties must be tied to the final thermal condition of the lot, not only to base bar chemistry.
- For receiving inspection, verify marking, protector condition, lot segregation, and traceability records before rods enter storage or field service.

6. Source Notes

1. API 2025 Publications Catalog, Exploration and Production section: publication title, scope summary, page count, edition, and effective date for Spec 11B.
2. API Monogram update dated December 20, 2023: notice of publication of API Spec 11B 28th Edition.
3. API 11B Addendum 1 update dated September 15, 2025: issued changes and API Monogram effective date.
4. API 11B Licensing Information Form dated March 20, 2024 and API Licensing Information Form update notice dated March 28, 2024: current product scope and removal of 'Threading' from licensing scope.
5. Publicly accessible scan of API Spec 11B 27th Edition hosted at octalsteel.com: compact dimensional, mechanical property, marking, and handling values reproduced here in limited summary form for reference.

Prepared in summary form to support engineering review, quoting preparation, and inspection planning. It is not a replacement for the licensed full standard.